

MODIFICATION INSTRUCTIONS

1. Replace the X-Y monitor with a modified monitor.
2. Do ECN 978 on the CPU board. See attached instructions.
3. Do ECN 991 on the X-Y timing board. See attached instructions.
4. Record the game and monitor serial numbers on the distributor record sheet.
5. Place the colored label on the top left corner of the kick plate.
6. Each team will have the number of games the distributor has purchased. There is a good possibility that number will not be in the distributor's location. Leave the correct number to make up the difference.
7. The removed monitors should be loaded on your truck and returned to Gremlin with you. There will be special cases when these instructions will change.
8. Provide the distributor with a copy of the Distributor Record Sheet, be sure to bring the original back with you.

EFFECT:

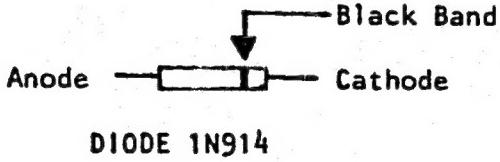
X-Y TIMING BOARD

NUMBER: 007

September 17, 1981

To ensure that the vertical and horizontal outputs of the G-80 X-Y Timing Board do not exceed a preset level, the addition of 2 diodes is recommended. The diodes, type 1N914, are installed as follows:

1. Remove the G-80 Timing Board from the card cage.
2. Solder the ANODE of one diode to Pin 1 of the Molex connector located on the front edge of the Timing Board. It is recommended that the diode be installed on the underside of the board.
3. Solder the CATHODE of the diode to a +5 volt pad on the back of the board. This can be found at the +5 volt pin on the closest IC.
4. Install the CATHODE of the second diode to +5, in the same way. Then, solder the ANODE of this diode to Pin 4 of the Molex connector.



DIODE 1N914

PART NUMBER

151-0031

QUANTITY

ORIGINATOR

DEPT.

50

DATE

8-21-81

REASON FOR VARIANCE

151-0031 CERAMIC CAPACITOR .22-MF 16V
 IS NOT AVAILABLE IN THE TIME FRAME REQUIRED

WILL VARIANCE BE ACCEPTED ON FUTURE LOTS

YES

NO

IS ECR REQUIRED

YES

NO

ECR WRITTEN BY _____

DATE _____

CHECK APPLICABLE DOCUMENTS AFFECTED BY VARIANCE

 ENGINEERING DRAWINGS MFG. PROCESS DETAIL PURCHASE ORDER SCHEMATICS RECEIVING REPORT BOM OTHER

AUTHORIZATION FOR SUBSTITUTE MATERIAL

PART NUMBER

151-0031

DESCRIPTION

CAPACITOR
.22MF 16V CER DISC

REQUESTOR

DEPT.

DATE

SUBSTITUTE MATERIAL USE GREMLIN P/N 152-0029 .33MF 250V

CERAMIC CAPACITORS TO REPLACE 151-0031 ON C45 OF
CPU BOARD ASSY 800-0107

QUANTITY OF END ITEM AFFECTED _____

AUTHORIZED BY T. Hansen

DATE

8/21/81

DATE

GREMLINS

ENGINEERING CHANGE NOTICE

TE: 8-22-81

ECN # 978

SHEET: 1 OF 1

(REF ECR # 370)

EFFECTIVE DATE	ASSEMBLY	PART NUMBER	DRAWING NUMBER	REV
8-24-81	CPU BOARD	800-0107	800-0107	E

CHANGE: PARTS LIST:

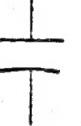
ITEM P/N QTY REF DES
 1 150-0088 15 ~~2~~ WAS 4 15 C43.C46.C62 WAS C43.C45.C46.C62

ADD ITEM 58:

P/N 151-0031 QTY (1) CAP CER .22UF 16V C45

CHANGE SHEET 6 ZONE 7A:

IS:  C45
 .22 UF
 16V

WAS:  C45
 10 UF
 25 V

REASON FOR CHANGE:

REDUCE POWER ON DELAY FROM 1.5 SECS TO 20 MSECS
 TO ALLOW XV MONITOR OUTPUTS TO BE RESET IN 20
 MSECS THEREBY REDUCING STRESS ON MONITOR
 OUTPUT CIRCUITS

CLASS OF CHANGE - CHECK ONE ONLY		DISTRIBUTION
<input checked="" type="checkbox"/>	A EMERGENCY. INCORPORATE IN PRODUCTION AT ONCE. ALL ASSEMBLIES, PARTS ISSUED TO ASSEMBLY AREAS AND PARTS IN STOCK AFFECTED.	<input checked="" type="checkbox"/> MANUFACTURING
<input type="checkbox"/>	B URGENT. AFFECTS PARTS FOR WHICH PRODUCTION ORDERS HAVE BEEN INITIATED BUT NOT COMPLETED, PURCHASE REQUISITIONS, FINISHED PARTS IN STOCK, PARTS ISSUED TO ASSEMBLY AREAS, AFFECTS SUB-ASSEMBLIES AND FINAL ASSEMBLIES.	<input checked="" type="checkbox"/> DRAFTING <input checked="" type="checkbox"/> TEST <input checked="" type="checkbox"/> PURCHASING
<input type="checkbox"/>	C AFFECTS ALL FUTURE PARTS FOR WHICH PRODUCTION ORDERS HAVE NOT YET BEEN INITIATED, BUT CHANGE NEED NOT BE CARRIED OUT UNTIL STOCK IS BALANCED.	<input checked="" type="checkbox"/> OUTSIDE VENDOR
<input type="checkbox"/>	D AFFECTS NO PARTS OR ASSEMBLIES-FOR INFORMATION AND RECORDS ONLY.	<input checked="" type="checkbox"/> Q.C. <input checked="" type="checkbox"/> C.S.

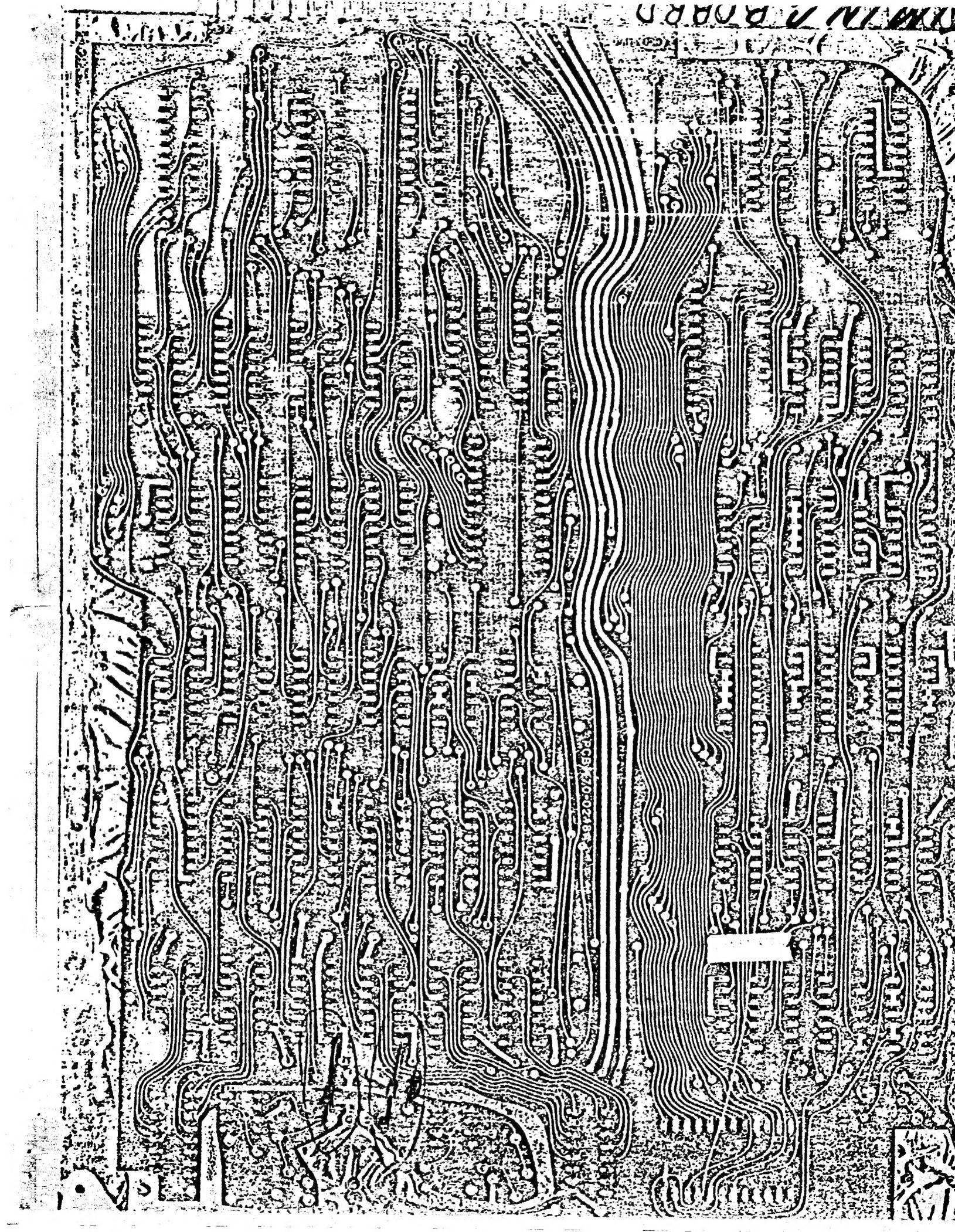
REQUESTED BY AND DATE:

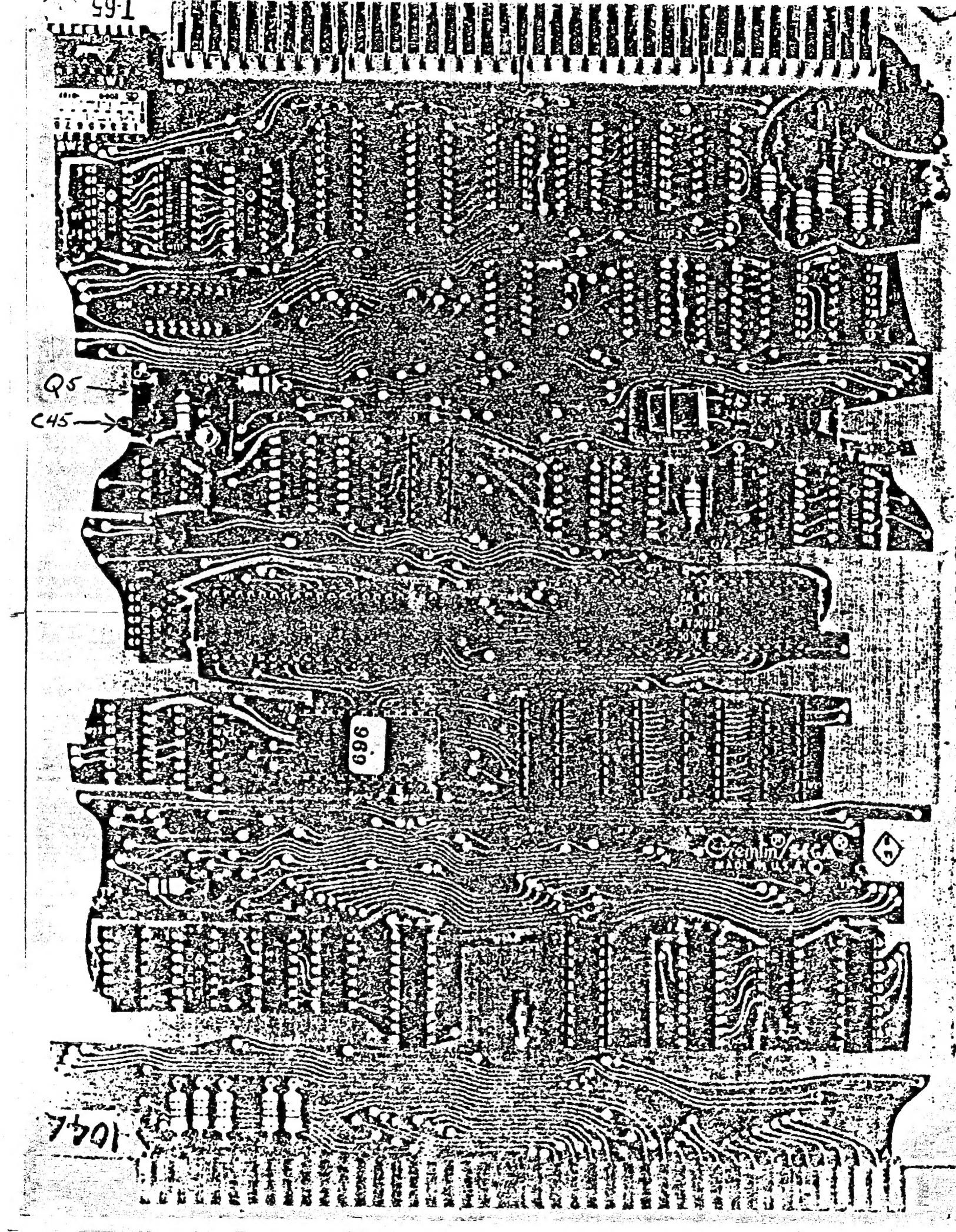
G. HANSEN 8-22-81

APPROVED BY AND DATE:

Lorenzen 8-22-81

PRINTED CIRCUIT BOARD





Monitor Removal

Release the fasteners on the control panel and swing it down. Directly under the front plexiglass, you will notice a small frame support piece. Grab it by the hand slot in the middle and pull it from the game. The front plexiglass can now be removed easily by lifting it on the bottom slightly and pulling it outward. Next, remove the interior graphics. The graphics frame, located directly behind the interior graphics, can be removed by gripping two sides and carefully lifting it out. Now open the rear panel on the cabinet and disconnect the power cable and video cable to the monitor. Now go back to the front and remove the four bolts in each corner of the monitor board. Now grasp the board by the hand holds provided at the top and bottom and pull the monitor from the cabinet. To replace follow the same procedure in reverse except you will notice on the rear of the new monitor there is an extra board added. Mount this board on the cabinet with the tie wraps provided and the connector coming from this board is plugged into the video cable. Reconnect the power cable as usual. Before closing up, ensure that the heat sinks on the driver transistors are not touching each other.